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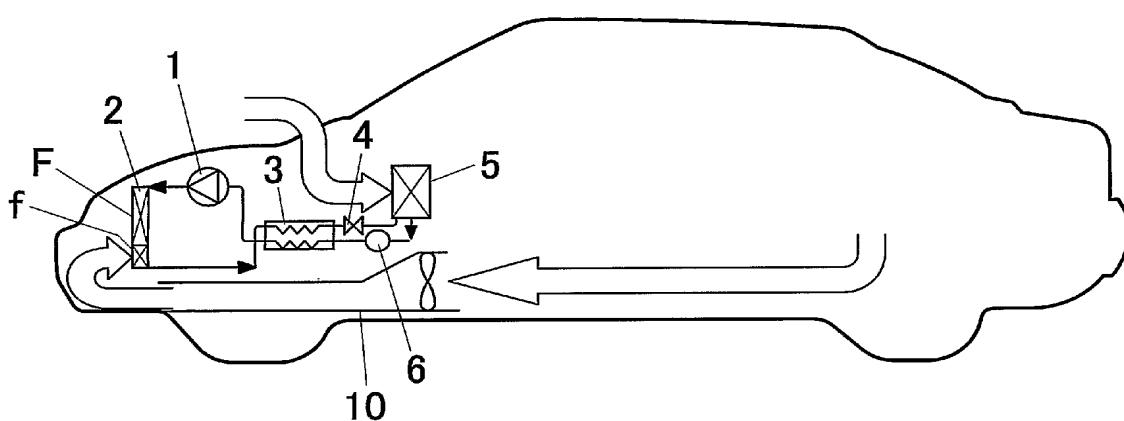
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(54) Title: VEHICLE AIR-CONDITIONING RELATED TECHNIQUE HAVING REFRIGERATION CYCLE OF SUPERCRITICAL REFRIGERANT



(57) **Abstract:** The invention is directed to a vehicle air-conditioning apparatus in which supercritical refrigerant passing through a refrigerant heat releasing passage P of a heat releasing device 2 exchanges heat with refrigerant cooling air introduced from an air introduction surface F of a heat releasing device 2 to be cooled, and the cooled refrigerant exchanges heat with air to be introduced into a passenger compartment by an evaporator 5. Since at least a part of discharge air discharged from an inside of a passenger compartment is introduced from an air introduction surface F of the heat releasing device 2 as a ventilation loss utilizing air, ventilation loss utilizing air can be used as a part of refrigerant cooling air. It is constituted such that the ventilation loss utilizing air is introduced to the downstream side area f of the refrigerant heat releasing passage P in an air introduction surface F of the heat releasing device 2. Thus, in a vehicle air-conditioning apparatus having a supercritical refrigerant refrigeration cycle, ventilation loss can be reduced while improving refrigeration performance.

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